



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,867	05/30/2001	Goran Snygg	3670-33	4501

7590 09/15/2004

NIXON & VANDERHYE P.C.  
8th Floor  
1100 North Glebe Road  
Arlington, VA 22201

EXAMINER
----------

NGUYEN, DUC M

ART UNIT	PAPER NUMBER
----------	--------------

2685

DATE MAILED: 09/15/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/866,867

**Applicant(s)**

SNYGG ET AL.

**Examiner**

Duc M. Nguyen

**Art Unit**

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

This action is in response to applicant's response filed on 6/7/04. Claims 1-12 are now pending in the present application.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims **1, 3-6, 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lopponen et al (US 5,781,860)** in view of **Futamura (US 6,023,609)**.

Regarding claims **1, 6**, **Lopponen** discloses a radio communication system comprising a plurality of mobile station (transmitting and receiving devices) capable of communicating in the direct mode, comprising :

- an antenna as claimed (see Fig. 5);
- a controller for controlling the transceiver to tune to the channel used in responsive to a channel identifier contained in a command (control signal) received from a dispatcher (external source) (see col. 5, lines 35 – col. 8, line 29).

Here, although **Lopponen** is silent on a variable filter for the tuning circuit, it is noted that the use of a variable filter for tuning the transceiver to a selected channel is well known in the art as disclosed by **Futamura** (see Figs. 3-4 and col. 10, lines 31-45). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the above

teaching of Futamura to Lopponen for providing a variable filter as claimed, for adaptively filtering unwanted signals to improve signal reception quality of a desired signal.

Regarding claims 3, 8, they are rejected for the same reason as set forth in claim 1 above. In addition, Lopponen discloses a central control device (dispatcher) as claimed (see col. 4, lines 60-65).

Regarding claims 4-5, they are rejected for the same reason as set forth in claim 1 above. In addition, Futamura discloses the variable filter is bandpass filter or notch (band elimination) filter as claimed (see col. 11, lines 23-35).

2. Claims 2, 7, 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Futamura** (US 6,023,609) in view of **Liu et al** (US 6,289,218).

Regarding claims 2, 7, **Futamura** discloses a mobile transceiver comprising

- an antenna as claimed (see Figs. 3-4);
- a controller for controlling the transceiver to tune the variable filter to the channel used in responsive to a channel identifier contained in a command (control signal) received from a base station (external source) (see Figs. 3-4 and col. 10, lines 31-45).

However, Futamura fails to disclose the control signal for controlling the filter in the transmitting device is located at the receiving device and vice versa. However, **Liu** discloses a direct mode communication method wherein two handsets can be communicated to each other based on ID codes, and wherein a channel number is included in the ID codes (see col. 2, lines 20-28). Since Liu and Futamura both disclose mobile handsets, it would have been obvious to one skilled in the art at the time the invention was made to provide the above teaching of Liu to

Art Unit: 2685

Futamura for further providing direct mode channels to mobile handsets as well, thereby resulting in that the control signal for controlling the filter in the transmitting device is located at the receiving device, and vice versa, as claimed (i.e, each of the devices controls a reception channel that provides the best signal connection quality), for utilizing advantages provided by direct mode communication in situations such as the mobile handsets are at a great distance from the base station such that system channels can not be used.

Regarding claims **9, 12**, they are rejected for the same reason as set forth in claim 2 above.

Regarding claims **10-11**, they are rejected for the same reason as set forth in claim 2 above. In addition, Futamura discloses the variable filter is bandpass filter or notch (band elimination) filter as claimed (see col. 11, lines 23-35).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **Kinnunen** (US 6,230,015), Picking up of mobile station from a direct mode.
- **Lehmusto et al** (US 5,907,794), Controlling a subscriber station on a direct mode channel.
- **Wellig et al** (US 6,580,704), Direct mode communication method between two mobile terminals in access point controlled wireless LAN system.

5. **Any response to this action should be mailed to:**

Commissioner of Patent and Trademarks

Washington, D.C. 20231

or faxed to:

703-872-9314 (for formal communications intended for entry)

(for informal or draft communications, please label PROPOSED or DRAFT)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Duc M. Nguyen whose telephone number is 703-306-4531. The  
examiner can normally be reached on Monday-Thursday (9:30 AM – 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the  
organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the receptionist whose telephone number is 703-305-3900.

Duc M. Nguyen  
Sept 8 2004

